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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,604	03/15/2001	Peter H. Markusch	Mo5944/MD-00-108-PU	4995
157	7590	06/15/2005	EXAMINER	
BAYER MATERIAL SCIENCE LLC			SALVATORE, LYNDIA	
100 BAYER ROAD			ART UNIT	
PITTSBURGH, PA 15205			PAPER NUMBER	
			1771	
DATE MAILED: 06/15/2005				

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/809,604  
Filing Date: March 15, 2001  
Appellant(s): MARKUSCH ET AL.

John E. Mrozinski, Jr.  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
JUN 15 2005  
**GROUP 1700**

This is in response to the appeal brief filed 05/16/05.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of the Claimed Subject Matter***

The summary of invention contained in the brief is correct.

**(6) *Grounds of Rejection to be Reviewed on Appeal***

The appellant's statement of the issues in the brief is correct.

**(7) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) *Prior Art of Record***

US 6,187,892

Markusch et al

02-2001

**(9) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 2,5-11 and 21 stand rejected under 35 U.S.C. 102(e) as anticipated  
Markusch et al., US 6,187,892.

Applicant previously amended claims 2 and 21 to recite the isocyanate formula of  $(Q(NCO)_n)$  where n represents a number from 2 to about 5, Q represents an aliphatic hydrocarbon group, a cycloaliphatic hydrocarbon group, an araliphatic hydrocarbon group, or an aromatic hydrocarbon group. Markusch et al., teaches that R, which is the same as Applicant's "Q" represents a divalent aliphatic hydrocarbon group having 4-18 carbon atoms, a divalent cycloaliphatic hydrocarbon group having 5-15 carbon atoms, a divalent araliphatic hydrocarbon group having 7-15 carbon atoms or a divalent aromatic hydrocarbon group having 6-15 carbon atoms (Column 3, 55-Column 4, 5). Markusch et al., teaches using poly(phenylisocyanate) (Column 4, 22). In addition Markusch et al., teaches an isocyanate group content from 20-30% by weight, which meets the limitation of at least 10% by weight (Column 3, 35-45). With regard to claim 10, Markusch et al., teaches a NCO content ranging from 5-30% and mixture viscosity of 1000mPa.s at 2525 ° C (Column 2, 58-61 and Column 4, 30-41). Markusch et al., teaches employing a high molecular weight polyether polyol having a functionality ranging from 1.5 to 3 and a molecular weight ranging from 1800 to 12,000 (Column 5, 40-Column 6, 29). With regard to claim 7, Markusch et al., teaches polyether polyols based on propylene oxide (Column 6, 22-25). Markusch et al., also teaches including a low molecular weight diol or triol having a molecular weight ranging from 60-400 (Column 6, 37-52). With regard to the organometallic catalyst, Markusch et al., teaches a variety of suitable materials (Column 9, 15-Column 10,5). With regard to the water limitation, the Examiner interprets the limitation of no more than .1% to include 0%. Markusch et al., teaches applying the

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polyurethane composition to various substrates such as woven and non-woven textiles (Column 10, 20-25).

The recited intended use of a geotextile in the preamble is not given patentable weight at this time since the prior art meets the structural and chemical limitations. The reference teaches applying the polyurethane composition as uniform layer to a variety of textile substrates. As such, since the Applicant fails to set forth the structure limitations of the geotextile it is the position of the Examiner that a non-woven comprising said polyurethane coating could function in the desired capacity of a geotextile. The burden is upon the Applicant to evidence the contrary.

2. Claims 12-14, 19-22 and 25-32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Markusch et al., US 6,187,892.

As previously set forth Markusch et al., teaches the polyurethane composition.

With regard to claims 12-14 and 29-31, Markusch et al., teaches applying the polyurethane composition to various substrates such as woven and non-woven textiles (Column 00010, 20-25), but fails to teach the amount per square meter or thickness limitations, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of polyurethane coating as a function of desired impregnation and intended final use. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

With regard to the claimed amount of propylene oxide adduct recited in claims 19b) and 32b), part i, Markusch et al., fails to explicitly the claimed range of 5 to 15 parts, however it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to optimize the amount of amine containing propylene oxide adduct to achieve a balance of properties within the mixture. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

With regard to the molecular weight limitations set forth in claims 20 and 32, Markusch et al., fails to explicitly teach the claimed ranges, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the molecular weight of each component as a function of desired functionality (i.e., viscosity, weight) and intended end use. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617, 617 F 2d 272,205 USPQ 215

With regard to the amount of tin catalyst used as set forth in claim 19 Markusch et al., does teach a tin comprising catalyst (Column 9, 15-20), but fails to explicitly teach the claimed ranges, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize amount of catalyst used to facilitate the reaction. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617, 617 F 2d 272,205 USPQ 215

The recited intended use of a geotextile in the preamble is not given patentable weight at this time since the prior art meets the structural and chemical limitations. The reference teaches applying the polyurethane composition as uniform layer to a variety of textile substrates. As such, since the Applicant fails to set forth the structure limitations of the geotextile it is the position of the Examiner that a non-woven comprising said polyurethane coating could function in the desired capacity of a geotextile. The burden is upon the Applicant to evidence the contrary.

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3. Claims 3,4,23, and 24 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Markusch et al., US 6,187,892 as applied to claims 2 and 19 above.

With regard to the NCO:OH equivalent ratio limitations set forth, although Markusch et al., does not explicitly teach the claimed ratio s, it is reasonable to presume that said property is inherent to the invention of Markusch et al. Support for said presumption is found in the use of like materials (i.e., poly(phenylisocyanate), high molecular weight polyols and low molecular weight triols having the desired reactive OH groups), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed NCO:OH equivalent ratio's would obviously been present once the Markusch et al., product is provided. *In re Best*, 195 USPQ 433

**(10) Response to Argument**

With regard to the anticipation rejection of claims 2,5-11 and 21, Applicant argues that the cited prior art of Markusch et al., fails to anticipate the claimed invention. Specifically, Applicant disagrees with the Examiner that the adhesive composition taught by Markusch et al., would inherently soak on into the porous substrates with the application of pressure on the grounds that Markusch et al., teaches that the viscosity of the reacting adhesives composition is sufficiently high such that said composition remains on the surface of porous substrate. This argument is not found persuasive. It should be noted that, Applicant's lack of arguments with respect to the adhesive composition taught by Markusch et al., is taken as an admission that the adhesive composition of Markusch et al., meets all of the unfilled polyurethane composition limitations presently set forth.

With regard to the recited impregnated limitations, the Examiner maintains that while it may be that the polyurethane composition remains on the surface of the substrate after coating, upon the application of pressure, the polyurethane composition would inherently impregnate and/or soak into any of the porous textile substrates taught by Markusch et al., (Column 10, 20-25).

However, if as Applicant argues, the adhesive composition would not penetrate the porous substrate with the application of pressure because the viscosity is high, the Examiner respectfully points out that Markusch et al., teaches applying the adhesive composition by known methods such as spraying, brush coating, immersion or flooding or by means of rollers or doctor blade applications (Column 10, 18-20). As such, the Examiner asserts that immersing or flooding a porous textile with the adhesive composition alone or in combination with the application of pressure would inherently meet the recited impregnate limitations.

With regard to the obviousness rejections of claims 12-14, 19-22 and 25-32, Applicant argues that the Examiner did not address Applicant's arguments in the Final Rejection. Applicant reiterates arguments made of record. Specifically, Applicant argues that there is no teaching, suggestion, or motivation in Markusch et al., to modify the adhesive composition such that it will impregnate a textile. In response, it is the position of the Examiner it is not necessary to provide a teaching to modify the adhesive composition such that it will impregnate a porous textile. The Examiner maintains that based on the coating methods taught by Markusch et al., as set forth above, the adhesive composition would inherently impregnate a porous textile.



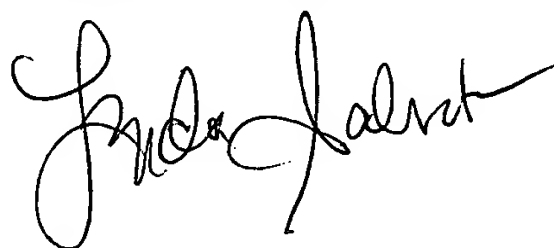
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With regard to the anticipation/obviousness rejections of claims 3, 4, 23 and 24, Applicant argues that the Examiner did not address Applicant's arguments in the Final Rejection. Applicant reiterates arguments made of record. Specifically Applicant maintains the prior art of Markusch et al., does not teach or suggest the claimed invention. In addition, Applicant argues a lack of inherency with respect to the NCO: OH on the grounds that Applicant is not providing the product of Markusch et al. This argument is not found persuasive. The Examiner did not rely on *In re Fitzgerald* and *In re Best* to argue that Applicant was attempting to provide the Markusch product. Rather, the Examiner relied upon *In re Fitzgerald* and *In re Best* to support that the claimed NCO: OH ratio is inherent to the adhesive composition of Markusch et al., and that said ratio would be present once the Markusch et al., product is provided. The Examiner maintains that although Markusch et al., does not explicitly teach the claimed ratios, it is reasonable to presume that said property is inherent to the invention of Markusch et al.

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Support for said presumption is found in the use of like materials (i.e., poly(phenyloisocyanate), high molecular weight polyols and low molecular weight triols having the desired reactive OH groups), which would result in the claimed property. Thus, the rejected claims would be rendered anticipated and/or obvious once the Markusch et al., product is provided. For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Lynda Salvatore  
June 10, 2005

Conferees

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